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ABSTRACT

A study examined two contexts in teaching a language experience approach (LEA) reading lesson to kindergarten children. The five children--Black, Hispanic, and White students of varying ability levels--first developed a group story of their own using the Van Allen language experience approach. The teacher recorded the story, and the students wrote their original contribution on kindergarten-lined paper. In the second context, the same children again developed their own group story, but also used a microcomputer with a speech synthesizer and special software. Each child typed in his or her contribution and then received a copy. The story was also repeated to them by the speech synthesizer. Findings indicated that the use of the microcomputer with speech synthesis enhanced beginning reading instruction using LEA. (FL)

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BEGINNING READING INSTRUCTION; USING THE LEA APPROACH WITH AND WITHOUT MICRO-COMPUTER INTERVENTION

By Jean M. Casey, PhD.

Many reading authorities as well as psycholinguists (Goodman 1972,Smith 1978) agree that the Language Experience Approach is the best way to start beginning reading and make the connection for the student between the task of reading print and the fact that the print represents the language spoken by the student. The Language Experience approach (LEA) is a means of teaching students to read by capitalizing on their interests, experiences and oral language facility. Students dictate stories and accounts based on their experiences. These materials are then used as the basis of the reading program. The program is based on two assumptions: that interests and life experiences are of great personal value and are highly meaningful to students; and that learning to read is easiest and most enjoyable when reading materials match the language patterns and speaking vocabularies of the readers. (Nessel, Jones, 1981) Smith says, " Learning to read can be perceived as making sense of more and more kinds of language in more and more contexts, fundamentally a matter of experience."

This study seeks to examine two contexts in teaching a language

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experience reading lesson. The presentations were to five, five-year old kindergarten students in a Southern California elementary school regular classroom. The range of abilities of the five students included low, average and high ability, male and female, black, spanish and caucasian students. The researcher video-taped the two contexts studied and using a pre-designed protocol evaluated whether either method of presentation enhanced the instruction as evidenced by student active participation, language and print production and student enthusiasm and involvement.

It is hoped to generalize from this sample to the normal five year old population.

CONTEXT 1: Researcher used a strong Van Allen LEA approach and had students develop a group story of their own, teacher recorded the story on an experience chart and then students wrote their original contribution on kindergarten lined paper.

CONTEXT 2- Researcher used the same students and same LEA approach to developing a group experience story but this time the use of the Apple II microprocessor with Echo speech synthesizer and Talking Screen software developed by Dr. Laura Meyers was used for the students to type in their story and then receive a printed copy of their contribution. The story they wrote was also repeated for them by the computer speech synthesizer.

HYPOTHESIS: The use of micro-computer with speech synthesis will enhance the instruction of beginning reading using a Language Experience approach.

Background-Survey of Literature

Hildreth (1965) provides an excellent historical perspective on the evolution of the language experience approach from its classroom origins around 1900 through studies investigating the approach from 1926 to 1965. Teaching reading as a language experience rests on a philosophy of personal, communicative, creative, and functional learning and teaching. Instruction is based on children's existing level of language expression as speech is encoded with written symbols and as they read the written record of their spoken thoughts. (Hall,1981) Growth in language that permits and promotes reading is the major goal of a language experience approach. Reading is never treated as something apart from language and thought. The existing language of each child is used as the base for building language competence required for reading printed materials. A continuing emphasis is placed on the individual use of language to produce reading material so children can observe and experience language relationships that work for them. Language is treated as a unique human experience which can be valued, kept through writing, and then reconstructed through reading. No child's language is rejected as inadequate because rejection can often make a child feel he/she is being rejected since our language is a projection of our thinking and ourselves. (Van Allen, 1976.)

Studies of handicapped youngsters, youngsters with different cultural backgrounds, as well as the normal school population all mention the relationship of self-concept to success and achievement in the classroom. The relationship between self-esteem and achievement occurs very early in school. Research by Wattenberg & Clifford (Dembo,1981) in which investigators gave kindergarten children an intelligence test and a self-esteem test before they began to read and then tested them for reading achievement two and one-half years later, found that the earlier self-esteem tests were better indicators of current reading achievement than was the child's earlier performance on the IQ test. The implication of this type research is that some children are poor readers because they believe they cannot read. Such children are caught in a vicious cycle. They believe they can't read and so they avoid it.According to Good & Brophy,1978 development of a favorable self-concept is dependent upon two major factors; behavioral success (mastery of assigned school work) and the student's perception of his progress. Low expectations are destructive because they reduce students' task motivation and the time and effort that they are willing to devote to activities.

Another important aspect of this problem is the issue of control. Children will work harder at tasks if they believe they (rather than chance or the teacher) are responsible for the success they achieve. (Rotter, 1966,Lefcourt,1966,Dembo,1981).

In his book Mindstorms, Seymour Papert suggests that computers can put into the hands of the child new conceptual tools that will change the learning experience from a matter of discipline and suffering into one of discovery and excitement. As the child works with the computer they acquire a sense of mastery and control over their own learning.

The last important point that research indicates is important in teaching large groups of children to read is the multisensory approach. The work of Gillingham, Orton, Fernald illustrate the importance of the visual,auditory, kinesthetic, tactile approach to teaching (VAKT). The multisensory approach provides an opportunity for all children to acquire the information through their best modality. (Kirk & Kirk,1976)

In summary, the rationale for using the language experience approach is based on psychological and linguistic considerations. Psychologically, the factors of success, motivation, and attitude, which have a favorable effect on self-concept and achievement, support the use of the language experience approach. Linguistically the language experience approach is recommended because the relationship between oral and written language can be shown best by using the language of children in the creation of reading materials. (Hall, 1972)

PURPOSE OF THIS STUDY

This study will examine two contexts in teaching a language experience reading lesson. The presentations will be to average five-year old kindergarten students who are not yet fluent readers. The researcher video-taped both contexts and using a pre-designed protocol (see Fig. 1) observed the effectiveness of the two presentations.

SUBJECTS

The subjects are all kindergarten students approximately 5.5 years of age attending a Southern California school district. They represent the Black, Anglo, Spanish population, male and female and also high, average and low school achievement.

I am especially interested in this population for a believe we need to begin to apply much of the research we now have on learning to the classroom teaching of reading. The experiment took place in a school classroom.

METHODOLOGY

The first lesson strictly followed the Language Experience lesson design advocated in 1966 by Roach Van Allen. It involves the students discussing and sharing experiences and then dictating their own stories and then writing them independently.

Procedure for LEA Lesson:

1. Preparing for dictation, developing oral language activity. (Using a stimulus or shared experience discussing an object or event.)
2. A dictated account should be obtained from the group.
   a. Use large lined oaktag or newsprint
   b. Tape it to chalkboard or easel
   c. Use felt tip pen or soft crayon-form letters neatly.
3. The elements to consider in developing dictated story.
   a. Oral language facility of students
   b. Willingness to dictate
   c. Attention span

According to Hall,1981 average story length seems to be a running word count of twenty-five to forty words. For an effective recording of the story the following procedures are suggested:

1. Record each child's statement immediately after it has been given, repeating the words while writing them on the chart.
2. Focus the group's attention on the chart during recording so that the children will see the individual words formed and will note the left-right progression of the formation of words and sentences.
3. Include the children's names with the statements they make. (The children"s names are often the easiest words for them to learn to recognize. In addition, their names serve as aids to remembering what statements were included in the story and so

further enable the reading of the story to proceed with ease.) Most teachers find it preferable to begin the statement with the child's name, e.g., Cecilia said, "Ms. Pacman chomp chomps power pellets and likes baby pacman."

4. Include commas, quotation marks, and other appropriate punctuation with each statement. (Nessel & Jones 1981)

A toy lion was used by the researcher to stimulate a discussion about animals and pets. As each child contributed their own language based on their personal experiences the researcher recorded their sentence on an experience chart in front of the room. Children were asked to read the sentence on the chart after the teacher had recorded their dictated speech. Then the children as a group orally read the entire story and then they each were given paper and pencil and asked to copy the sentence they had created from the chart to their paper.

At the second session the same LEA procedure was followed but this time instead of using an experience chart the researcher used an Apple II computer with Echo II speech systhesis and printer. Instead of a lion to stimulate shared experiences the computer was the topic of discussion. Students created their own sentences and these were recorded on the computer. Students again read the sentences they wrote, then received a printed copy of them and were asked to read them orally as a group.

RESULTS OF STUDY

The first session plus discussion with the teacher prior to the experiement both yielded baseline data. The students ranged from being abled to read sentences they composed after someone else wrote them down to not being able to read more than their name. The visual-motor coordination of the students ranged from excellent to very poor.

Using the video-tape to record the session and then the written output of the students the first session and computer printed output of the students work the second session the researcher had sufficient data to evaluate. Using the protocol developed by Meyers and Casey,1983(see Fig. 1) the following conclusions were arrived at.

Session one summary. Each student remained on task and actively participated in lesson, motivation was high, the topic was their own pets and each student contributed at least one sentence orally, and some contributed two with a total of eleven generated sentences, three phrases and four words. On task behavior was recorded at 5, 10 and 15 minutes into the session and all students were on task at those times. Two peer interactions occured and two incidents of own task or off task behavior. When asked to repeat the sentence they had created and the researcher had recorded on the experience chart all could repeat and read it with the exception of Codey who could

recognize no more than his own name in print and could not repeat his own language created sentence. When the group was asked to read their story together orally, participation included all but Codey once again. When asked to copy their sentences on paper a range of abilities was evidence although everyone did get something on paper. Susan and Ondee were able to copy their entire sentence and then read their print, Cecilia and Scott copied most of their sentence and could read what they wrote. Codey could only copy his name and had difficulty with that repeatedly erasing it and finally resorting to drawing a kangaroo on his paper, he appeared frustrated during this task. Sentences produced by the children were grammatically correct and ranged in length from Codey's one word to Susan's twelve words. Ondee had ten, Cecilia eight, Scott seven.

The topic for the stories, pets, considered by reading authorities to be motivational for students of this age level seemed to be a successful stimulus.

The students chose the title for their story as a group. The following is the story they developed.

ANIMAL STORY

SUSAN HAS ONE DOG, THREE CATS AND TWO BIRDS AND TWO GOLDFISH.

CECILIA HAS ONE SILVER GOLDFISH NAMED MARK AND ONE KANGAROO.

CODEY HAS A KANGAROO NAMED LEO THE KANGAROO.

SCOTT HAS TWO DOGS. THEIR NAMES ARE REBEL AND BEREE.

ONDEE HAS SIX BIRDS AND TWO CATS AND ONE KANGAROO.

Session one was considered a successful language experience lesson since it met all the criteria for such a lesson. Codey was the student selected at this time as the "target child" since he evidenced frustration with the task in the first session, stated that he did not know how to read and failed to try to repeat his sentence as well as demonstrated off task behavior or lower motivation for the task then the others. If a new method was found it would need to be successful for learners like Codey. It was noted that Codey had not yet developed success in visual-motor coordination and his lack in eye hand coordination made him frustrated and frantically erasing his efforts when he was called upon to copy his sentence.

Session 2:

Ondee was absent on the day of Session 2 so only Susan, Scott, Cecelia and Codey participated. The same procedure was followed as much as possible with the inclusion of an Apple II computer with Echo II speech synthesis and Talking Screen software (Meyers,1983) and printer.

Instead of the toy lion, the computer itself was used as the stimulus to start oral discussion. The researcher was surprised to find that 100% of the students all had either Atari or some sort of video or computer-like device in their home and all were very interested and knowledgeable about the use and excitement of video games. The discussion on this topic was much more

enthusiastic, involving and produced longer and richer language contributions from all participants. Twenty sentences were produced by the four participants and four phrases and four words. On task behaviors were again recorded at 5, 10 and 15 minute intervals and were on task at each time, this session due to the involvements of the students lasted 50 minutes. Out of task behavior began to occur after 45 minutes but this would be expected given the attention span of this age group child.

Each child was invited to come up to the computer and press 1 and the computer had been pre-programmed to read their name. This was extremely motivating to them and the delight was registered on their faces. By the third child they could tell me that it was 1 they were to press on the computer and computer literacy was being acquired by them at an astounding learning rate. They all developed longer sentences with richer language of more descriptive speech. However the active participation of Scott, Susan and Cecilia seemed about the same in both sessions. The target child, Codey, however was a very different case. This time when it was his turn up at the computer he was spell-bound. He knew immediately what button to press to hear his name and wanted to press it immediately. He was absolutely intent on watching the terminal display as his very own words appeared their and he had his own control in entering his name. After the researcher entered his sentence, he asked to play it over several times, when he was to leave, he looked up and said, "Can I write E.T.?" He wanted to put whatever he knew on the computer. After

entering E.T. on his own, he scanned the room for print symbols he knew he couldn't read and began to type them on the machine and then listen to them and beamed as he realized he could now unlock these mysterious words everyone around him had been reading except him. Simply by pressing the computer button the words he had typed in were spoken to him and he repeated them. Codey was demonstrating what Chomsky considered a primary factor in successful learning; the element of voluntary action and self-willed exploration of the environment.

When given the printed copy of the story developed by the group he initially looked at the print and said what he had always known prior to this session, I can't read that. The researcher brought him back to the computer display and he located his part of the story and then he controlled the speech repetition a number of times, following the print on screen closely with his eyes and sub-vocalizing. After about three times, he read the story he had written, at this point the researcher gave him the printed copy of the story and he also read that. With a twinkle in his eye, he looked up at me and said, "I can read" I knew you could was my reply. Codey experienced success with this task that he had not received with the first session due to his lack of visual-motor proficiency and also perhaps through his lack of control in the learning situation that previously was the asynchronous balance of large teacher and small me who can't do the task as well as others. Now the balanced switched and he had

control of input to the computer and he could unlock mysterious words on the wall with the assist of the computer and he never received a glance making him feel he was too slow or not as bright as anyone else. Codey's self-concept seemed to blossom as he experienced success with this new approach to reading print and indeed left with the belief that he too was now a reader! (see Fig. 2 for the text of the story developed by group Session 2)

In summary, the hypothesis that the use of micro-computer with speech synthesis would enhance the instruction of beginning reading using a LEA approach was accepted.

Research by Dr. Laura Meyers, USC Speech and Communication Lab, 1982 showed, "that the microprocessor is a powerful tool to facilitate early literacy acquistion for hadicapped children. The availability of multiple modalities including speech output, print display on the computer monitor screen and hard copy from printer made the intervention much more motivating."

This report confirms Dr. Meyers results only this time with a normal school population who benefit equally well from all aspects of micro-computer lesson enhancement.

It was also noted that five year olds already have much experience background with video equipment, they find it them extremely motivating, they are enthralled with their own control over their learning situation and they become computer literate extremely rapidly. The visual, auditory and kinesthetic nature of the micro-computer lesson seems to meet the needs of all type learners regardless of modality, and offer hope of success to youngsters who have not yet developed motor

coordination for the task of writing or any other disability which prevents them from learning effectively in their own way and sentences them to emotional feelings of failure that interfere with their reading acquistion. The micro-computer when used with a teacher trained as a facilitator and aware of the vital connection between ones own language and being able to recognize and read that language in print can be an extremely valuable addition to all elementary classrooms and beginning reading instruction in particular.

Finally current theory of cognitive intervention (Pappert) with microprocessors calls for recognitkon that children are builders of their own intellectual structures and the power principle states that learning must empower the learner to perform meaningful projects that could not have been done without it.

Language experience lessons presented with micro-computer and speech enhancement make these theories turn into success stories in the real world. Codey's joyous pronouncement of "I can read" tells the whole story!

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